Curriculum: West Shore SD 2009 Curriculum
Course: Physics

WEST SHORE SD
Date: May 21, 2009 ET

Topic: Effects of Forces
Subject Area(s):

Days: 9
Grade(s):

Key Learning: **All changes in translational motion are due to forces.**

Unit Essential Question(s): **How do forces affect the motion of objects?**

Concept: **a) Law of Inertia** S8.A.2.1.2, S8.A.2.1.4, S11.A.3.3.3, S11.A.1.1.2, 3.4.12.C	Concept: **b) measurement of forces** S11.D.3.1.1, S11.A.3.3.3, S8.A.2.1.1, 3.1.12.D, 3.4.12.C	Concept: **e, g) F.B.D.** S11.D.3.1.1, S8.A.2.1.1, S8.A.2.1.2, S8.A.2.1.4, S11.A.3.3.3, S11.A.1.1.4, S11.C.3.1.2, 3.4.12.C
Lesson Essential Question(s): What are the defining charactersitics of inertia? (A)	**Lesson Essential Question(s):** How do forces relate to the basic properites of matter? (A) How can forces be quantified and measured? (A) How does centripetal acceleration affect the motion of an object? (ET)	**Lesson Essential Question(s):** How do you use vectors to draw a free body diagram? (A) How do you use a Free Body Diagram to determine the sum of forces on an object? (A) How can you use the summation of forces to determine the acceleration of an object? (A)
Vocabulary: Inertia, Mass, Rest, Newton's First Law, Law of Inertia	**Vocabulary:** Force, Inversely Proportional, Directly Proportional	**Vocabulary:** Free Body Diagram

Concept: **c, d, f) 2nd law** S11.C.3.1.3, S11.A.1.3.1, S8.A.2.1.1, S8.A.2.1.2, S8.A.2.1.4, S11.A.3.3.3, S11.A.1.1.2, 3.1.12.D, 3.4.12.C	Concept:	Concept:
Lesson Essential Question(s): How can you use the summation of forces to calculate the acceleration of an object? (A) How can you infer the forces on an object from information about its motion? (A)	**Lesson Essential Question(s):**	**Lesson Essential Question(s):**
Vocabulary: Newton's Second Law, Summation, Sigma	**Vocabulary:**	**Vocabulary:**

Additional Information:

Attached Document(s):